Pt. 60

or renewed in those communities. Policies sold or renewed within a community during a period of ineligibility are deemed to be voidable by the Administrator whether or not the parties to sale or renewal had actual notice of the ineligibility.

[41 FR 46968, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, and amended at 48 FR 44543 and 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984; 50 FR 36023, Sept. 4, 1985; 57 FR 19540, May 7, 1992; 59 FR 53598, Oct. 25, 1994]

PART 60—CRITERIA FOR LAND MANAGEMENT AND USE

Subpart A—Requirements for Flood Plain Management Regulations

Sec.

- 60.1 Purpose of subpart.
- 60.2 Minimum compliance with flood plain management criteria.
- 60.3 Flood plain management criteria for flood-prone areas.
- 60.4 Flood plain management criteria for mudslide (i.e., mudflow) -prone areas.
- 60.5 Flood plain management criteria for flood-related erosion-prone areas.
- 60.6 Variances and exceptions.
- 60.7 Revisions of criteria for flood plain management regulations.
- 60.8 Definitions.

Subpart B—Requirements for State Flood Plain Management Regulations

- 60.11 Purpose of this subpart.
- 60.12 Flood plain management criteria for State-owned properties in special hazard areas.
- 60.13 Noncompliance.

Subpart C—Additional Considerations in Managing Flood-Prone, Mudslide (i.e., Mudflow)-Prone, and Flood-Related Erosion-Prone Areas

- 60.21 Purpose of this subpart.
- 60.22 Planning considerations for floodprope areas.
- 60.23 Planning considerations for mudslide (i.e., mudflow)-prone areas.
- 60.24 Planning considerations for flood-related erosion-prone areas.
- 60.25 Designation, duties, and responsibilities of State Coordinating Agencies.
- 60.26 Local coordination.

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Subpart A—Requirements for Flood Plain Management Regulations

§60.1 Purpose of subpart.

- (a) The Act provides that flood insurance shall not be sold or renewed under the program within a community, unless the community has adopted adequate flood plain management regulations consistent with Federal criteria. Responsibility for establishing such criteria is delegated to the Administrator.
- (b) This subpart sets forth the criteria developed in accordance with the Act by which the Administrator will determine the adequacy of a community's flood plain management regulations. These regulations must be legally-enforceable, applied uniformly throughout the community to all privately and publicly owned land within flood-prone, mudslide (i.e., mudflow) or flood-related erosion areas, and the community must provide that the regulations take precedence over any less restrictive conflicting local laws, ordinances or codes. Except as otherwise provided in §60.6, the adequacy of such regulations shall be determined on the basis of the standards set forth in §60.3 for flood-prone areas, §60.4 for mudslide areas and §60.5 for flood-related erosion areas.
- (c) Nothing in this subpart shall be construed as modifying or replacing the general requirement that all eligible communities must take into account flood, mudslide (i.e., mudflow) and flood-related erosion hazards, to the extent that they are known, in all official actions relating to land management and use.
- (d) The criteria set forth in this subpart are minimum standards for the adoption of flood plain management regulations by flood-prone, mudslide (i.e., mudflow)-prone and flood-related erosion-prone communities. Any community may exceed the minimum criteria under this part by adopting more comprehensive flood plain management regulations utilizing the standards such as contained in subpart C of this

part. In some instances, community officials may have access to information or knowledge of conditions that require, particularly for human safety, higher standards than the minimum criteria set forth in subpart A of this part. Therefore, any flood plain management regulations adopted by a State or a community which are more restrictive than the criteria set forth in this part are encouraged and shall take precedence.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

§ 60.2 Minimum compliance with flood plain management criteria.

- (a) A flood-prone community applying for flood insurance eligibility shall meet the standards of §60.3(a) in order to become eligible if a FHBM has not been issued for the community at the time of application. Thereafter, the community will be given a period of six months from the date the Director provides the data set forth in §60.3 (b), (c), (d), (e) or (f), in which to meet the requirements of the applicable paragraph. If a community has received a FHBM, but has not yet applied for Program eligibility, the community shall apply for eligibility directly under the standards set forth in §60.3(b). Thereafter, the community will be given a period of six months from the date the Director provides the data set forth in §60.3 (c), (d), (e) or (f) in which to meet the requirements of the applicable paragraph.
- (b) A mudslide (i.e., mudflow)-prone community applying for flood insurance eligibility shall meet the standards of \$60.4(a) to become eligible. Thereafter, the community will be given a period of six months from the date the mudslide (i.e., mudflow) areas having special mudslide hazards are delineated in which to meet the requirements of \$60.4(b).
- (c) A flood-related erosion-prone community applying for flood insurance eligibility shall meet the standards of §60.5(a) to become eligible. Thereafter, the community will be given a period of six months from the date the flood-related erosion areas having special erosion hazards are de-

lineated in which to meet the requirements of $\S60.5(b)$.

- (d) Communities identified in part 65 of this subchapter as containing more than one type of hazard (e.g., any combination of special flood, mudslide (i.e., mudflow), and flood-related erosion hazard areas) shall adopt flood plain management regulations for each type of hazard consistent with the requirements of §§ 60.3, 60.4 and 60.5.
- (e) Local flood plain management regulations may be submitted to the State Coordinating Agency designated pursuant to §60.25 for its advice and concurrence. The submission to the State shall clearly describe proposed enforcement procedures.
- (f) The community official responsible for submitting annual or biennial reports to the Administrator pursuant to §59.22(b)(2) of this subchapter shall also submit copies of each annual or biennial report to any State Coordinating Agency.
- (g) A community shall assure that its comprehensive plan is consistent with the flood plain management objectives of this part.
- (h) The community shall adopt and enforce flood plain management regulations based on data provided by the Administrator. Without prior approval of the Administrator, the community shall not adopt and enforce flood plain management regulations based upon modified data reflecting natural or man-made physical changes.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 29318, June 24, 1983; 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984; 50 FR 36024, Sept. 4, 1985; 59 FR 53598, Oct. 25, 1994]

§ 60.3 Flood plain management criteria for flood-prone areas.

The Administrator will provide the data upon which flood plain management regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Administrator. However, when special flood hazard area designations and

water surface elevations have been furnished by the Administrator, they shall apply. The symbols defining such special flood hazard designations are set forth in §64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-prone areas adopted by a particular community depend on the amount of technical data formally provided to the community by the Administrator. Minimum standards for communities are as follows:

- (a) When the Administrator has not defined the special flood hazard areas within a community, has not provided water surface elevation data, and has not provided sufficient data to identify the floodway or coastal high hazard area, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall:
- (1) Require permits for all proposed construction or other development in the community, including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas;
- (2) Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334;
- (3) Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall (i) be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, (ii) be constructed with materials resistant to flood damage, (iii) be constructed by methods and practices that minimize flood damages, and (iv) be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to

prevent water from entering or accumulating within the components during conditions of flooding.

- (4) Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards;
- (5) Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems; and
- (6) Require within flood-prone areas (i) new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and (ii) onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding.
- (b) When the Administrator has designated areas of special flood hazards (A zones) by the publication of a community's FHBM or FIRM, but has neither produced water surface elevation data nor identified a floodway or coastal high hazard area, the community shall:
- (1) Require permits for all proposed construction and other developments including the placement of manufactured homes, within Zone A on the community's FHBM or FIRM;
- (2) Require the application of the standards in paragraphs (a) (2), (3), (4), (5) and (6) of this section to development within Zone A on the community's FHBM or FIRM;
- (3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions)

greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data;

- (4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, including data developed pursuant to paragraph (b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;
- (5) Where base flood elevation data are utilized, within Zone A on the community's FHBM or FIRM:
- (i) Obtain the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures, and
- (ii) Obtain, if the structure has been floodproofed in accordance with paragraph (c)(3)(ii) of this section, the elevation (in relation to mean sea level) to which the structure was floodproofed, and
- (iii) Maintain a record of all such information with the official designated by the community under §59.22 (a)(9)(iii);
- (6) Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Administrator;
- (7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained;
- (8) Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

- (c) When the Administrator has provided a notice of final flood elevations for one or more special flood hazard areas on the community's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the community's FIRM, but has not identified a regulatory floodway or coastal high hazard area, the community shall:
- (1) Require the standards of paragraph (b) of this section within all A1-30 zones, AE zones, A zones, AH zones, and AO zones, on the community's FIRM;
- (2) Require that all new construction and substantial improvements of residential structures within Zones A1-30, AE and AH zones on the community's FIRM have the lowest floor (including basement) elevated to or above the base flood level, unless the community is granted an exception by the Administrator for the allowance of basements in accordance with §60.6 (b) or (c);
- (3) Require that all new construction and substantial improvements of nonresidential structures within Zones A1-30, AE and AH zones on the community's firm (i) have the lowest floor (including basement) elevated to or above the base flood level or, (ii) together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (4) Provide that where a non-residential structure is intended to be made watertight below the base flood level, (i) a registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of paragraph (c)(3)(ii) or (c)(8)(ii) of this section, and (ii) a record of such certificates which includes the specific elevation (in relation to mean sea level) which such structures floodproofed shall be maintained with

the official designated by the community under §59.22(a)(9)(iii);

- (5) Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- (6) Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites
- (i) Outside of a manufactured home park or subdivision,
- (ii) In a new manufactured home park or subdivision,
- (iii) In an expansion to an existing manufactured home park or subdivision or
- (iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist floatation collapse and lateral movement.
- (7) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the commu-

nity's FIRM (at least two feet if no depth number is specified);

- (8) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of nonresidential structures (i) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or (ii) together with attendant utility and sanitarv facilities be completely floodproofed to that level to meet the floodproofing standard specified in §60.3(c)(3)(ii);
- (9) Require within any A99 zones on a community's FIRM the standards of paragraphs (a)(1) through (a)(4)(i) and (b)(5) through (b)(9) of this section;
- (10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.
- (11) Require within Zones AH and AO, adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.
- (12) Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A-1-30, AH, and AE on the community's FIRM that are not subject to the provisions of paragraph (c)(6) of this section be elevated so that either
- (i) The lowest floor of the manufactured home is at or above the base flood elevation, or
- (ii) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to

resist floatation, collapse, and lateral movement.

- (13) Notwithstanding any other provisions of §60.3, a community may approve certain development in Zones Al-30, AE, and AH, on the community's FIRM which increase the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision, fulfills the requirements for such a revision as established under the provisions of §65.12, and receives the approval of the Administrator.
- (14) Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either
- (i) Be on the site for fewer than 180 consecutive days,
- (ii) Be fully licensed and ready for highway use, or
- (iii) Meet the permit requirements of paragraph (b)(1) of this section and the elevation and anchoring requirements for "manufactured homes" in paragraph (c)(6) of this section.
- A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.
- (d) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the community's FIRM, and has provided data from which the community shall designate its regulatory floodway, the community shall:
- (1) Meet the requirements of paragraphs (c) (1) through (14) of this section;
- (2) Select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point:
- (3) Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory

- floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge;
- (4) Notwithstanding any other provisions of §60.3, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions as established under the provisions of §65.12, and receives the approval of the Administrator.
- (e) When the Administrator has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified on the community's FIRM coastal high hazard areas by designating Zones V1-30, VE, and/or V, the community shall:
- (1) Meet the requirements of paragraphs (c)(1) through (14) of this section;
- (2) Within Zones V1-30, VE, and V on a community's FIRM, (i) obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement, and (ii) maintain a record of all such information with the official designated by the community under §59.22(a)(9)(iii):
- (3) Provide that all new construction within Zones V1-30, VE, and V on the community's FIRM is located landward of the reach of mean high tide;
- (4) Provide that all new construction and substantial improvements in Zones VI-30 and VE, and also Zone V if base flood elevation data is available, on the community's FIRM, are elevated on pilings and columns so that (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to

or above the base flood level; and (ii) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraphs (e)(4) (i) and (ii) of this section.

- (5) Provide that all new construction and substantial improvements within Zones V1-30, VE, and V on the community's FIRM have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood latticework, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:
- (i) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and,
- (ii) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Water loading values used shall be those associated with the

base flood. Wind loading values used shall be those required by applicable State or local building standards.

Such enclosed space shall be useable solely for parking of vehicles, building access, or storage.

- (6) Prohibit the use of fill for structural support of buildings within Zones V1-30, VE, and V on the community's FIRM:
- (7) Prohibit man-made alteration of sand dunes and mangrove stands within Zones V1-30, VE, and V on the community's FIRM which would increase potential flood damage.
- (8) Require that manufactured homes placed or substantially improved within Zones V1-30, V, and VE on the community's FIRM on sites
- (i) Outside of a manufactured home park or subdivision,
- (ii) In a new manufactured home park or subdivision,
- (iii) In an expansion to an existing manufactured home park or subdivision, or
- (iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, meet the standards of paragraphs (e)(2) through (7) of this section and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within Zones VI-30, V, and VE on the community's FIRM meet the requirements of paragraph (c)(12) of this section.
- (9) Require that recreational vehicles placed on sites within Zones V1–30, V, and VE on the community's FIRM either
- (i) Be on the site for fewer than 180 consecutive days,
- (ii) Be fully licensed and ready for highway use, or
- (iii) Meet the requirements in paragraphs (b)(1) and (e) (2) through (7) of this section.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

- (f) When the Director has provided a notice of final base flood elevations within Zones A1–30 or AE on the community's Flood Insurance Rate Map, and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's Flood Insurance Rate Map, and has identified flood protection restoration areas by designating Zones AR, AR/A1–30, AR/AE, AR/AH, AR/AO, or AR/A, the community shall:
- (1) Meet the requirements of paragraphs (c) (1) through (14) and (d) (1) through (4) of this section.
- (2) Adopt the official map or legal description of those areas within Zones AR, AR/A1-30, AR/AE, AR/AH, AR/A, or AR/AO that are designated developed areas as defined in §59.1 in accordance with the eligibility procedures under §65.14.
- (3) For all new construction of structures in areas within Zone AR that are designated as developed areas and in other areas within Zone AR where the AR flood depth is five feet or less:
- (i) Determine the lower of either the AR base flood elevation or the elevation that is 3 feet above highest adjacent grade; and
- (ii) Using this elevation, require the standards of paragraphs (c) (1) through (14).
- (4) For all new construction of structures in those areas within Zone AR that are not designated as developed areas where the AR flood depth is greater than 5 feet:
- (i) Determine the AR base flood elevation; and
- (ii) Using that elevation require the standards of paragraphs (c) (1) through (14).
- (5) For all new construction of structures in areas within Zone AR/A1-30, AR/AE, AR/AH, AR/AO, and AR/A:
- (i) Determine the applicable elevation for Zone AR from paragraphs (3) and (4):
- (ii) Determine the base flood elevation or flood depth for the underlying A1-30, AE, AH, AO and A Zone; and
- (iii) Using the higher elevation from (i) and (ii) require the standards of paragraphs (c) (1) through (14).
- (6) For all substantial improvements to existing construction within Zones

- AR/A1-30, AR/AE, AR/AH, AR/AO, and AR/A:
- (i) Determine the A1-30 or AE, AH, AO, or A Zone base flood elevation; and

(ii) Using this elevation apply the requirements of paragraphs (c)(1) through (c)(14).

(7) Notify the permit applicant that the area has been designated as an AR, AR/A1-30, AR/AE, AR/AH, AR/AO, or AR/A Zone and whether the structure will be elevated or protected to or above the AR base flood elevation.

[41 FR 46975, Oct. 26, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting $\S 60.3$, see the List of Sections Affected in the Finding Aids section of this volume.

§ 60.4 Flood plain management criteria for mudslide (i.e., mudflow)-prone areas.

The Administrator will provide the data upon which flood plain management regulations shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review, and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Administrator. However, when special mudslide (i.e., mudflow) hazard area designations have been furnished by the Administrator, they shall apply. The symbols defining such special mudslide (i.e., mudflow) hazard designations are set forth in §64.3 of this subchapter. In all cases, the minimum requirements for mudslide (i.e., mudflow)-prone areas adopted by a particular community depend on the amount of technical data provided to the community by the Administrator. Minimum standards for communities are as follows:

- (a) When the Administrator has not yet identified any area within the community as an area having special mudslide (i.e., mudflow) hazards, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall
- (1) Require permits for all proposed construction or other development in the community so that it may determine whether development is proposed

within mudslide (i.e., mudflow)-prone areas:

(2) Require review of each permit application to determine whether the proposed site and improvements will be reasonably safe from mudslides (i.e., mudflows). Factors to be considered in making such a determination should include but not be limited to (i) the type and quality of soils, (ii) any evidence of ground water or surface water problems, (iii) the depth and quality of any fill, (iv) the overall slope of the site, and (v) the weight that any proposed structure will impose on the slope;

(3) Require, if a proposed site and improvements are in a location that may have mudslide (i.e., mudflow) hazards, that (i) a site investigation and further review be made by persons qualified in geology and soils engineering, (ii) the proposed grading, excavations, new construction, and substantial improvements are adequately designed and protected against mudslide (i.e., mudflow) damages, (iii) the proposed grading, excavations, new construction and substantial improvements do not aggravate the existing hazard by creating either on-site or off-site disturbances, and (iv) drainage, planting, watering, and maintenance be such as not to endanger slope stability.

(b) When the Administrator has delineated Zone M on the community's FIRM, the community shall:

(1) Meet the requirements of paragraph (a) of this section; and

(2) Adopt and enforce a grading ordinance or regulation in accordance with data supplied by the Administrator which (i) regulates the location of foundation systems and utility systems of new construction and substantial improvements, (ii) regulates the location, drainage and maintenance of all excavations, cuts and fills and planted slopes, (iii) provides special requirements for protective measures including but not necessarily limited to retaining walls, buttress fills, sub-drains, diverter terraces, benchings, etc., and (iv) requires engineering drawings and specifications to be submitted for all corrective measures, accompanied by supporting soils engineering and geology reports. Guidance may be obtained from the provisions of the 1973 edition

and any subsequent edition of the Uniform Building Code, sections 7001 through 7006, and 7008 through 7015. The Uniform Building Code is published by the International Conference of Building Officials, 50 South Los Robles, Pasadena, California 91101.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

§ 60.5 Flood plain management criteria for flood-related erosion-prone areas.

The Administrator will provide the data upon which flood plain management regulations for flood-related erosion-prone areas shall be based. If the Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review, and reasonably utilize data available from other Federal. State or other sources, pending receipt of data from the Administrator. However, when special flood-related erosion hazard area designations have been furnished by the Administrator they shall apply. The symbols defining such special flood-related erosion hazard designations are set forth in §64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-related erosion-prone areas adopted by a particular community depend on the amount of technical data provided to the community by the Administrator. Minimum standards for communities are as follows:

(a) When the Administrator has not yet identified any area within the community as having special flood-related erosion hazards, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall

(1) Require the issuance of a permit for all proposed construction, or other development in the area of flood-related erosion hazard, as it is known to the community;

(2) Require review of each permit application to determine whether the proposed site alterations and improvements will be reasonably safe from flood-related erosion and will not cause

flood-related erosion hazards or otherwise aggravate the existing flood-related erosion hazard: and

(3) If a proposed improvement is found to be in the path of flood-related erosion or to increase the erosion hazard, require the improvement to be relocated or adequate protective measures to be taken which will not aggravate the existing erosion hazard.

(b) When the Administrator has delineated Zone E on the community's FIRM, the community shall

(1) Meet the requirements of paragraph (a) of this section; and

(2) Require a setback for all new development from the ocean, lake, bay, riverfront or other body of water, to create a safety buffer consisting of a natural vegetative or contour strip. This buffer will be designated by the Administrator according to the floodrelated erosion hazard and erosion rate, in conjunction with the anticipated "useful life" of structures, and depending upon the geologic, hydrologic, topographic and climatic characteristics of the community's land. The buffer may be used for suitable open space purposes, such as for agricultural, forestry, outdoor recreation and wildlife habitat areas, and for other activities using temporary and portable structures only.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

§60.6 Variances and exceptions.

(a) The Administrator does not set forth absolute criteria for granting variances from the criteria set forth in §§ 60.3, 60.4, and 60.5. The issuance of a variance is for flood plain management purposes only. Insurance premium rates are determined by statute according to actuarial risk and will not be modified by the granting of a variance. The community, after examining the applicant's hardships, shall approve or disapprove a request. While the granting of variances generally is limited to a lot size less than one-half acre (as set forth in paragraph (a)(2) of this section), deviations from that limitation may occur. However, as the lot size increases beyond one-half acre, the technical justification required for issuing a variance increases. The Adminis-

trator may review a community's findings justifying the granting of variances, and if that review indicates a pattern inconsistent with the objectives of sound flood plain management, the Administrator may take appropriate action under §59.24(b) of this subchapter. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure. Procedures for the granting variances by a community are as follows:

(1) Variances shall not be issued by a community within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result;

(2) Variances may be issued by a community for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the procedures of paragraphs (a) (3), (4), (5) and (6) of this section;

(3) Variances shall only be issued by a community upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances;

(4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;

(5) A community shall notify the applicant in writing over the signature of a community official that (i) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction below the

base flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions as required in paragraph (a)(6) of this section; and

- (6) A community shall (i) maintain a record of all variance actions, including justification for their issuance, and (ii) report such variances issued in its annual or biennial report submitted to the Administrator.
- (7) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that (i) the criteria of paragraphs (a)(1) through (a)(4) of this section are met, and (ii) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.
- (b)(1) The requirement that flood-prone, mudslide (i.e., mudflow)prone, and flood-related erosion prone community must adopt and submit adequate flood plain management regulations as a condition of initial and continued flood insurance eligibility is statutory and cannot be waived, and such regulations shall be adopted by a community within the time periods specified in §§ 60.3, 60.4 or § 60.5. However, certain exceptions from the standards contained in this subpart may be permitted where the Administrator recognizes that, because of extraordinary circumstances, local conditions may render the application of certain standards the cause for severe hardship and gross inequity for a particular community. Consequently, a community proposing the adoption of flood plain management regulations which vary from the standards set forth in §§ 60.3, 60.4, or § 60.5, shall explain in writing to the Administrator the nature and extent of and the reasons for the exception request and shall include sufficient supporting economic, environmental, topographic, hydrologic, and other scientific and technical data, and data with respect to the impact on public safety and the environment.
- (2) The Administrator shall prepare a Special Environmental Clearance to determine whether the proposal for an

- exception under paragraph (b)(1) of this section will have significant impact on the human environment. The decision whether an Environmental Impact Statement or other environmental document will be prepared, will be made in accordance with the procedures set out in 44 CFR part 10. Ninety or more days may be required for an environmental quality clearance if the proposed exception will have significant impact on the human environment thereby requiring an EIS.
- (c) A community may propose flood plain management measures which adopt standards for floodproofed residential basements below the base flood level in zones A1–30, AH, AO, and AE which are not subject to tidal flooding. Nothwithstanding the requirements of paragraph (b) of this section the Administrator may approve the proposal provided that:
- (1) The community has demonstrated that areas of special flood hazard in which basements will be permitted are subject to shallow and low velocity flooding and that there is adequate flood warning time to ensure that all residents are notified of impending floods. For the purposes of this paragraph flood characteristics must include:
- (i) Flood depths that are five feet or less for developable lots that are contiguous to land above the base flood level and three feet or less for other lots:
- (ii) Flood velocities that are five feet per second or less; and
- (iii) Flood warning times that are 12 hours or greater. Flood warning times of two hours or greater may be approved if the community demonstrates that it has a flood warning system and emergency plan in operation that is adequate to ensure safe evacuation of flood plain residents.
- (2) The community has adopted flood plain management measures that require that new construction and substantial improvements of residential structures with basements in zones A1-30, AH, AO, and AE shall:
- (i) Be designed and built so that any basement area, together with attendant utilities and sanitary facilities below the floodproofed design level, is

watertight with walls that are impermeable to the passage of water without human intervention. Basement walls shall be built with the capacity to resist hydrostatic and hydrodynamic loads and the effects of buoyancy refrom flooding to sulting the floodproofed design level, and shall be designed so that minimal damage will occur from floods that exceed that level. The floodproofed design level shall be an elevation one foot above the level of the base flood where the difference between the base flood and the 500-year flood is three feet or less and two feet above the level of the base flood where the difference is greater than three feet.

- (ii) Have the top of the floor of any basement area no lower than five feet below the elevation of the base flood;
- (iii) Have the area surrounding the structure on all sides filled to or above the elevation of the base flood. Fill must be compacted with slopes protected by vegetative cover;
- (iv) Have a registered professional engineer or architect develop or review the building's structual design, specifications, and plans, including consideration of the depth, velocity, and duration of flooding and type and permeability of soils at the building site, and certify that the basement design and methods of construction proposed are in accordance with accepted standards of practice for meeting the provisions of this paragraph;
- (v) Be inspected by the building inspector or other authorized representative of the community to verify that the structure is built according to its design and those provisions of this section which are verifiable.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44543 and 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984; 50 FR 36025, Sept. 4, 1985; 51 FR 30308, Aug. 25, 1986; 54 FR 33550, Aug. 15, 1989]

§ 60.7 Revisions of criteria for flood plain management regulations.

From time to time part 60 may be revised as experience is acquired under the Program and new information becomes available. Communities will be given six months from the effective date of any new regulation to revise

their flood plain management regulations to comply with any such changes.

§ 60.8 Definitions.

The definitions set forth in part 59 of this subchapter are applicable to this part.

Subpart B—Requirements for State Flood Plain Management Regulations

§60.11 Purpose of this subpart.

- (a) A State is considered a "community" pursuant to §59.1 of this subchapter; and, accordingly, the Act provides that flood insurance shall not be sold or renewed under the Program unless a community has adopted adequate flood plain management regulations consistent with criteria established by the Administrator.
- (b) This subpart sets forth the flood plain management criteria required for State-owned properties located within special hazard areas identified by the Administrator. A State shall satisfy such criteria as a condition to the purchase of a Standard Flood Insurance Policy for a State-owned structure or its contents, or as a condition to the approval by the Administrator, pursuant to part 75 of this subchapter, of its plan of self-insurance.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

§ 60.12 Flood plain management criteria for State-owned properties in special hazard areas.

- (a) The State shall comply with the minimum flood plain management criteria set forth in §§ 60.3, 60.4, and 60.5. A State either shall:
- (1) Comply with the flood plain management requirements of all local communities participating in the program in which State-owned properties are located; or
- (2) Establish and enforce flood plain management regulations which, at a minimum, satisfy the criteria set forth in §§ 60.3, 60.4, and 60.5.
- (b) The procedures by which a state government adopts and administers flood plain management regulations satisfying the criteria set forth in